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10/566,510	01/30/2006	Antonius Adriaan Maria Staring	NL303963	7328

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EXAMINER

LAFORGIA, CHRISTIAN A

ART UNIT	PAPER NUMBER
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2131

MAIL DATE	DELIVERY MODE
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11/23/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/566,510

Applicant(s)

STARING ET AL.

Examiner

Christian La Forgia

Art Unit

2131

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 September 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 7/31/07.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- ☐ Notice of Informal Patent Application
- ☐ Other: ____.

DETAILED ACTION

1. The amendment filed 19 September 2007 has been noted and made of record.
2. Claims 1-13 have been presented for examination.

Response to Arguments

3. Applicant's arguments, see page 9, filed 19 September 2007, with respect to the drawings have been fully considered and are persuasive. The objection of Figure 1 has been withdrawn.
4. Applicant's arguments, see page 9, filed 19 September 2007, with respect to the abstract have been fully considered and are persuasive. The objection of the Abstract has been withdrawn.
5. Applicant's arguments, see page 10, filed 19 September 2007, with respect to claim 13 have been fully considered and are persuasive. The 35 U.S.C. 101 rejection of claim 13 has been withdrawn, on the interpretation that the computer-readable medium as claimed by the Applicant includes storage media such as hard drives, RAM, ROM, and various portable storage mediums while precluding transmission media such as carrier signals, waves, and things of the ilk. It is noted that if the Applicant intends to include transmission media in the claimed computer-readable medium, claim 13 will, again, be rejected under 35 U.S.C. 101 since it is the Office's current position that claims involving signals encoded with functional descriptive material do not fall within any of the categories of patentable subject matter set forth in 35 U.S.C. § 101, and such claims are therefore ineligible for patent protection. *See* 1300 OG 142 (November 22, 2005) (in particular, see Annex IV(c)).
6. Applicant's arguments with respect to claims 1-13 have been considered but are moot in view of the new grounds of rejection set forth below.

Information Disclosure Statement

7. The information disclosure statement (IDS) submitted on 31 July 2007 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement has been considered by the examiner.

Claim Rejections - 35 USC § 103

8. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

9. Claims 1-3 and 6-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication No. 2003/0091186 to Fontijn et al., hereinafter Fontijn, in view of U.S. Patent No. 7,111,169 B2 to Ripley et al., hereinafter Ripley.

10. As per claim 1, Fontijn teaches a record carrier (Figures 1, 4, [block 4]) for storing user data in sectors (paragraph 0003) and management information associated with said sectors (paragraph 0022, i.e. initialization vector stored in each header or sub-header of each block/sector).

11. Fontijn does not teach wherein said management information comprises an encryption indication information indicating that the user data stored in the associated sector are to be encrypted by a read-out device before being transmitted over a communication bus.

12. Ripley teaches storing a media key on the storage medium (column 5, lines 40-44) and that the media key may serve to encrypt content at the source device before transmission to the destination device (column 5, lines 50-52). Ripley also discusses that the source device determines if the content is subject to watermarking (column 6, lines 26-31, column 7, lines 20-23), and if the content is subject to a watermark, than encrypting the content before transmission

on the bus or transmitted to its destination (column 6, lines 39-41, column 6, lines 55-58, column 7, lines 23-25).

13. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the management information comprise an encryption indication information indicating that the user data stored in the associated sector are to be encrypted by a read-out device before being transmitted over a communication bus, since Ripley states at column 3, lines 50-53 that employing bus encryption ensures that unprotected watermarked content is protected from unauthorized access and/or reproduction while minimizing inconveniences by avoiding bus encryption for data read from the storage medium that does not require protection (Ripley, column 6, lines 13-24).

14. Regarding claim 2, Fontijn teaches wherein said management information is stored in a sector header or in an additional sub-code channel (paragraph 0022, i.e. initialization vector stored in each header or sub-header of each block/sector).

15. Regarding claim 3, Fontijn teaches wherein said management information further comprises an encryption amount information indicating which part or parts of the user data stored in the associated sector are to be encrypted (paragraphs 0022, 0024, i.e. initialization vector can be used to contain encryption control information).

16. Regarding claim 6, Fontijn teaches wherein said management information further comprises a decryption indication information indicating that the user data stored in the

associated sector are to be decrypted by the read-out device before being encrypted again for transmission over said communication bus (paragraph 0048, i.e. data is decrypted and then re-encrypted).

17. With regards to claim 7, Fontijn teaches wherein a decryption key for decryption of the user data is dependent on at least the encryption indication information (paragraphs 0039, 0040).

18. As per claims 8, 9, and 13, Fontijn teaches a read-out device, method, and computer program product for reading data from a record carrier (Figures 1, 4, [block 4]) storing user data in sectors (paragraph 0003) and management information associated with said sectors (paragraph 0022, i.e. initialization vector stored in each header or sub-header of each block/sector) comprising:

a reading unit for reading said user data and said management information from said record carrier (Figures 1 and 4 [block 5], paragraphs 0036, 0037),

a data interpreter for interpreting said management information (paragraphs 0039, 0040, i.e. determining if the data is encrypted or not, determining a decryption key corresponds to the encryption key),

an encryption unit for encrypting user data of sectors for which the associated encryption indication information indicates that said user data are to be encrypted (Figure 4 [block 10], paragraphs 0022, 0048), and

an output unit for outputting said user data (Figure 4 [block 26], paragraph 0048).

19. Fontijn does not teach wherein said management information comprises an encryption indication information indicating that the user data stored in the associated sector are to be encrypted by a read-out device before being transmitted over a communication bus.

20. Ripley teaches storing a media key on the storage medium (column 5, lines 40-44) and that the media key may serve to encrypt content at the source device before transmission to the destination device (column 5, lines 50-52). Ripley also discusses that the source device determines if the content is subject to watermarking (column 6, lines 26-31, column 7, lines 20-23), and if the content is subject to a watermark, than encrypting the content before transmission on the bus or transmitted to its destination (column 6, lines 39-41, column 6, lines 55-58, column 7, lines 23-25).

21. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the management information comprise an encryption indication information indicating that the user data stored in the associated sector are to be encrypted by a read-out device before being transmitted over a communication bus, since Ripley states at column 3, lines 50-53 that employing bus encryption ensures that unprotected watermarked content is protected from unauthorized access and/or reproduction while minimizing inconveniences by avoiding bus encryption for data read from the storage medium that does not require protection (Ripley, column 6, lines 13-24).

22. As per claims 10 and 11, Fontijn teaches a recording device and method for recording data on a record carrier comprising:

an input unit for receiving user data and a command to record said user data in sectors on a record carrier from a communication bus (Figure 5 [block 34], paragraphs 0014, 0051),

a command interpreter for interpreting said command so as to identify a decryption indication information included therein indicating which parts of the received user data are encrypted and are to be decrypted before recording on said record carrier (Figure 5 [block 34], paragraphs 0014, 0051),

a decryption unit for decrypting the parts of said user data for which the associated decryption indication information indicates that they are encrypted and are to be decrypted before recording on said record carrier (Figures 1 and 4.[block 8], paragraphs 0040, 0048), and

a write unit for recording said user data in sectors on said record carrier and a management information associated with said sectors (Figure 5 [block 34], paragraphs 0014, 0051).

23. Fontijn does not teach encryption indication information indicating that the user data stored in the associated sector are to be encrypted by a read-out device before being transmitted over a communication bus.

24. Ripley teaches storing a media key on the storage medium (column 5, lines 40-44) and that the media key may serve to encrypt content at the source device before transmission to the destination device (column 5, lines 50-52). Ripley also discusses that the source device determines if the content is subject to watermarking (column 6, lines 26-31, column 7, lines 20-23), and if the content is subject to a watermark, than encrypting the content before transmission on the bus or transmitted to its destination (column 6, lines 39-41, column 6, lines 55-58, column 7, lines 23-25).

25. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the management information comprise an encryption indication information indicating that the user data stored in the associated sector are to be encrypted by a read-out device before being transmitted over a communication bus, since Ripley states at column 3, lines 50-53 that employing bus encryption ensures that unprotected watermarked content is protected from unauthorized access and/or reproduction while minimizing inconveniences by avoiding bus encryption for data read from the storage medium that does not require protection (Ripley, column 6, lines 13-24).

26. Regarding claim 12, Fontijn teaches an encryption indication information and that a decryption key for decryption of the user data is dependent on said encryption indication information (paragraphs 0039, 0040).

27. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fontijn in view of Ripley as applied above, and in further view of U.S. Patent No. 6,378,072 to Collins et al., hereinafter Collins.

28. Regarding claim 4, Fontijn does not teach an encryption algorithm information indicating which encryption algorithm is to be used for encryption.

29. Collins discloses using a plurality of encryption algorithms to secure a communications bus (column 6, lines 5-27).

30. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include an encryption algorithm information indicating which encryption algorithm

is to be used for encryption, since it would have provided a multitude of methods to secure the communication bus against unwanted access during transmission (Fontijn, paragraph 0018).

31. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fontijn in view of Ripley as applied above, and in further view of U.S. Patent Application Publication No. 2003/0159037 to Taki et al., hereinafter Taki.

32. Regarding claim 5, Fontijn does not teach a key-hierarchy information indicating which key-hierarchy is to be used for determination of an encryption key to be used for encryption.

33. Taki teaches a key-hierarchy information indicating which key-hierarchy is to be used for determination of a content key (Figures 4, 8, 23, paragraph 0001).

34. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include a key-hierarchy information indicating which key-hierarchy is to be used for determination of an encryption key to be used for encryption, since Taki states at paragraph 0001 that a key hierarchy is used for digital rights management and to ensure authorized use of the content.

Conclusion

35. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christian La Forgia whose telephone number is (571) 272-3792. The examiner can normally be reached on Monday thru Thursday 7-5.

36. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on (571) 272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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37. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Christian LaForgia
Patent Examiner
Art Unit 2131

A handwritten signature in black ink, appearing to read 'Christian LaForgia', written over a horizontal line.

Clf